

ABSTRACT OF THE DISCLOSURE

A collimator lens 13 converts a light transmitted from a light source 11 into an almost parallel light. A light receiving lens 14 receives the almost parallel light including a shadow 24 of a measurement object 23. 5 A one-dimensional image sensor 17 receives a light passing through a diaphragm 15. A two-dimensional image sensor 19 receives a light split by a beam splitter 16 through a second diaphragm 18. A signal processing section 20 10 obtains an outside dimension and a monitor image of a measured portion of the measurement object 23 by processing electric signals sent respectively from the image sensors 17 and 19. A display section 21 displays the outside dimension and the monitor image of the measured portion 15 of the measurement object 23.